



Seamless **DUPLEX**-Stainless Steel Tubes Grade **UNS S31803 / 1.4462**

- ▶ We have further extended our stock programme for you: Seamless ferritic-austenitic tubes of material UNS S31803, now in even more sizes, available from stock (see reverse).
- ▶ The name DUPLEX denotes the two-phase structure of a ferritic, high-strength chromium steel and an austenitic CrNi-steel with an excellent corrosion resistance.
- ▶ Special properties:
 - high strength (650-880 N/mm²)
 - high resistance to pitting corrosion, crevice corrosion and stress corrosion cracking (PRE \geq 35)
 - high resistance to abrasion
- ▶ A variety of applications in the chemical and petrochemical industry, such as on- and offshore engineering and seawater desalination plants.

Chemical composition (heat analysis in %) X2 CrNiMoN 22-5-3 / 1.4462 / UNS S31803

C	Si	Mn	P	S	N	Cr	Mo	Ni
≤0,03	≤1,00	≤2,00	≤0,035	≤0,015	0,10-0,22	21,00-23,00	2,50-3,50	4,50-6,50

Mechanical properties at room temperature

tensile strength	yield strength 0,2%	yield strength 1 %	elongation at fract. longit. (L ₀ =5 d ₀)	notch impact energy (ISO-V) longitud.
N/mm ²	N/mm ²	N/mm ²	%	J
650-880	min. 450	min. 500	min. 25	min. 100

Special grade UNS S31803 / UNS S32205 / 1.4462

▶ Seamless DUPLEX stainless steel tubes and pipes [available from stock](#)

OD mm	wall mm	ANSI	weight kg/m
8,00	1,00	–	0,175
10,00	1,50	–	0,319
12,00	1,50	–	0,394
13,50	2,30	–	0,645
17,20	2,30	–	0,858
21,34	2,77	1/2" SCH 40S	1,288
	3,73	1/2" SCH 80S	1,645
25,00	2,00	–	1,152
26,67	2,11	3/4" SCH 10S	1,298
	2,87	3/4" SCH 40S	1,710
	3,91	3/4" SCH 80S	2,228
33,40	2,77	1" SCH 10S	2,125
	3,38	1" SCH 40S	2,541
	4,55	1" SCH 80S	3,287
	6,35	1" SCH 160	4,301
42,16	2,77	1.1/4" SCH 10S	2,732
	3,56	1.1/4" SCH 40S	3,441
48,26	2,77	1.1/2" SCH 10S	3,155
	3,68	1.1/2" SCH 40S	4,108
	5,08	1.1/2" SCH 80S	5,493
	7,14	1.1/2" SCH 160	7,352
60,33	2,77	2" SCH 10S	3,992
	3,91	2" SCH 40S	5,524
	5,54	2" SCH 80S	7,601
	8,74	2" SCH 160	11,290

OD mm	wall mm	ANSI	weight kg/m
73,03	3,05	2.1/2" SCH 10S	5,345
	5,16	2.1/2" SCH 40S	8,769
	7,01	2.1/2" SCH 80S	11,585
76,10	3,60	–	6,535
88,90	3,05	3" SCH 10S	6,557
	4,05	–	8,605
	5,49	3" SCH 40S	11,466
	7,62	3" SCH 80S	15,509
	11,13	3" SCH 160	21,674
114,30	3,05	4" SCH 10S	8,496
	4,50	–	11,181
	6,02	4" SCH 40S	16,322
	8,56	4" SCH 80S	22,665
	11,13	4" SCH 120	28,753
	13,49	4" SCH 160	34,053
141,30	6,55	5" SCH 40S	22,101
168,30	3,40	6" SCH 10S	14,039
	7,11	6" SCH 40S	28,697
	10,97	6" SCH 80S	43,217
	14,27	6" SCH 120	55,038
	18,26	6" SCH 160	68,603
	21,95	6" XXS	80,438
219,10	3,76	8" SCH 10S	20,274
	8,18	8" SCH 40S	43,202
	12,70	8" SCH 80S	65,637
	18,26	8" SCH 120	91,830
	23,01	8" SCH 160	112,98
273,00	9,27	10" SCH 40S	61,217
323,90	9,52	12" SCH 40S	74,942

Stock standard:

ASTM/ASME A/SA 789/790 · EN 10216-5

NACE MR 0175

Mill inspection certificate EN DIN 10204/3.1

Extended scope of inspections (upon request):

NORSOK MDS-D41 · SHELL ES/247 Rev. 1

VdTÜV-Material Data Sheet 418

Mill inspection certificate EN DIN 10204/3.2 TÜV

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